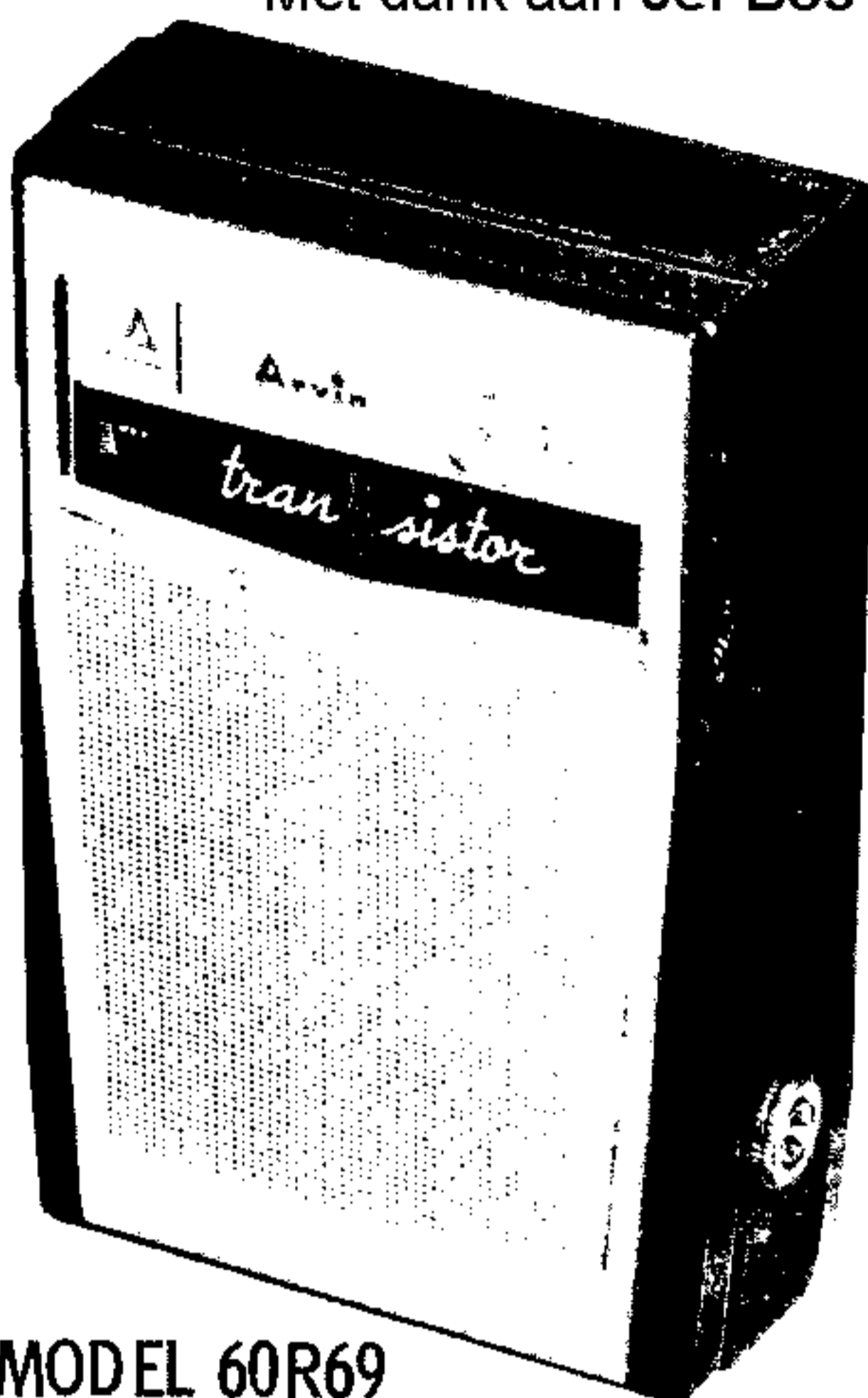
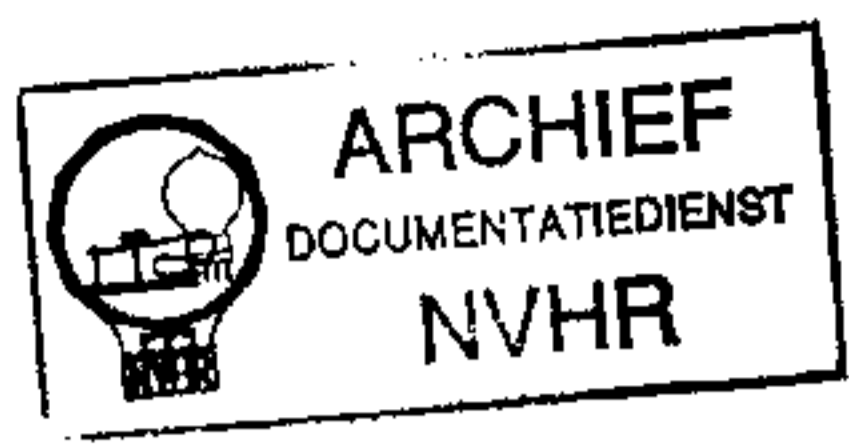


TOFACT' Folder

with CIRCUITRACE*

ARVIN MODELS 60R63, 60R69, 60R73, 60R79 (Ch. 1.50101)

Met dank aan Jef Bos Ned. Ver. v. Historie v/d



MODEL 60R69

TRADE NAME	Arvin Models 60R63, 60R69, 60R73, 60R79 (Ch. 1.50101)		
MANUFACTURER	Arvin Industries, Inc., Columbus, Indiana		
TYPE SET	Battery Operated Transistorized Portable AM Receiver		
POWER SUPPLY	9 Volts DC	RATING	7MA @ 9 Volts DC (No Signal, Min. Volume) 15MA @ 9 Volts DC (Signal, Normal Volume)
TUNING RANGE—BROADCAST	540 — 1670KC		

ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Volume control should be at maximum position. Output of signal generator should be no higher than necessary to obtain an output reading.

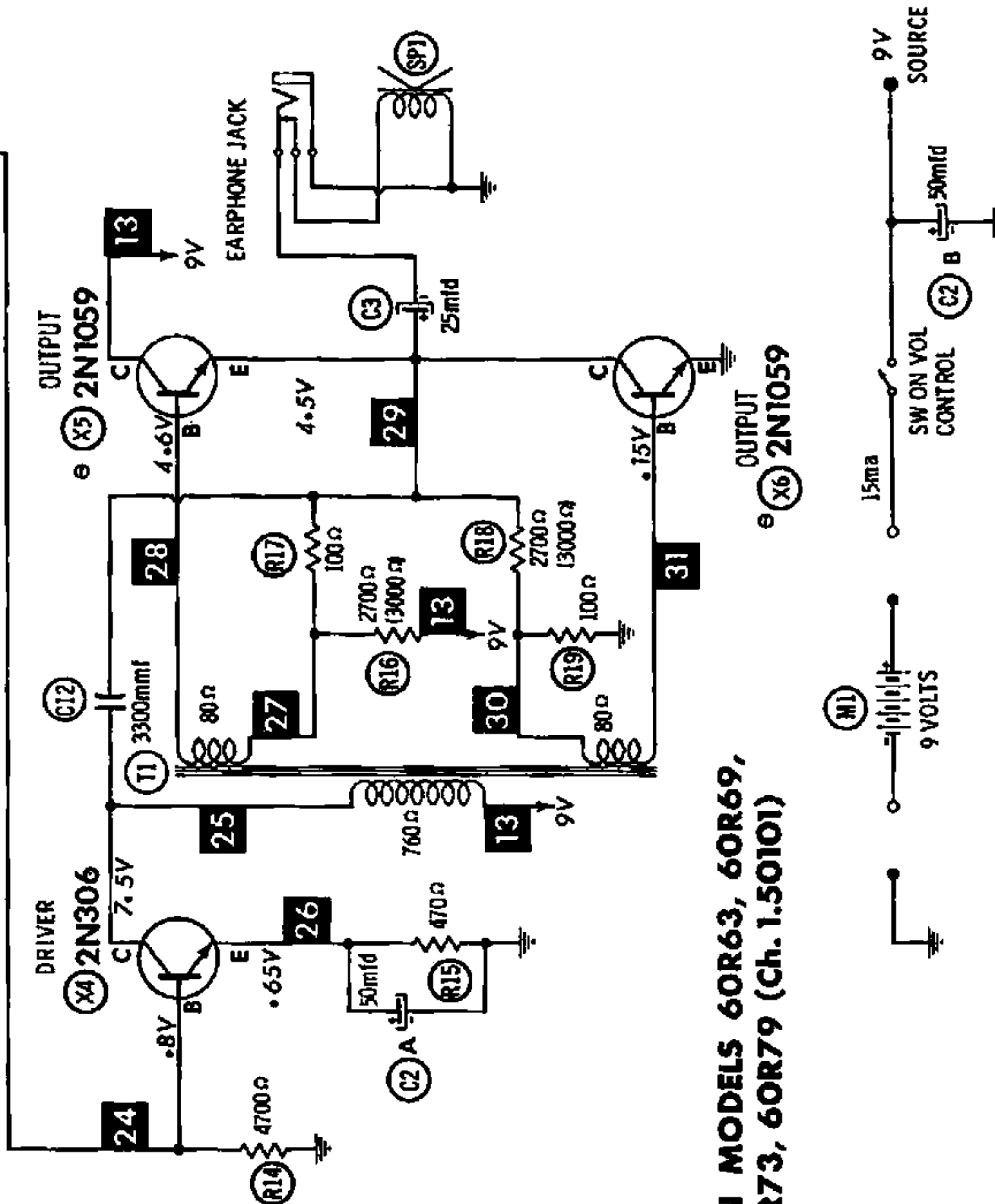
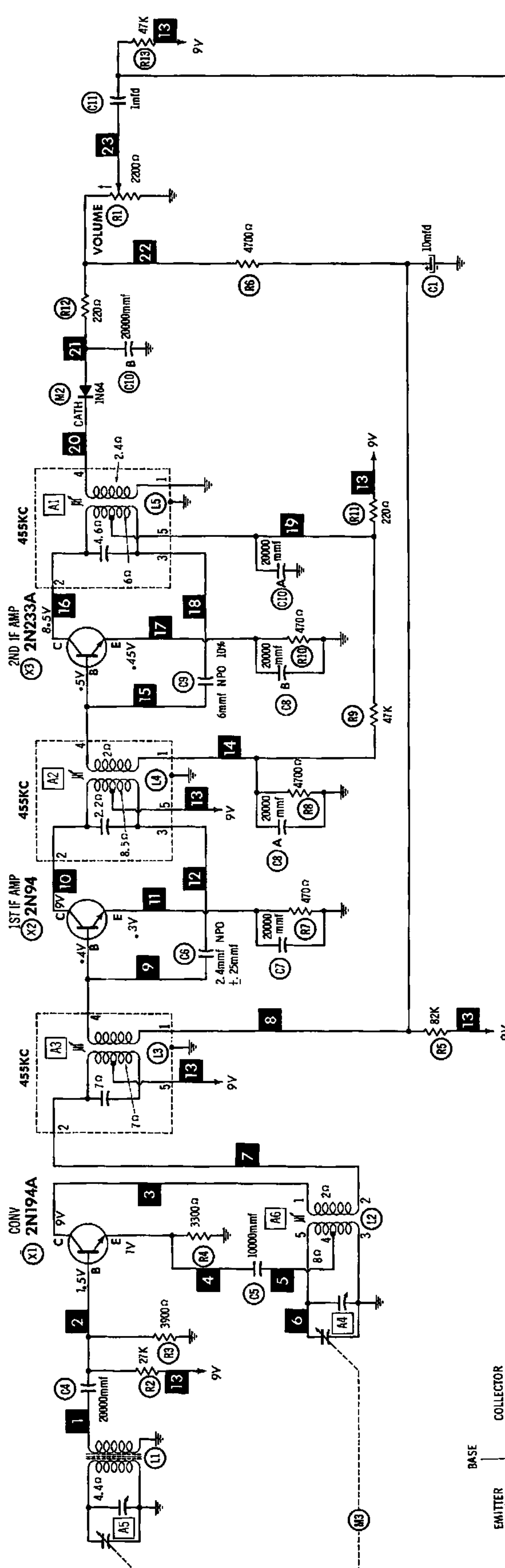
Suggested Alignment Tools: A1, A2, A3, A4, A5... GENERAL CEMENT #5009, 8195, 8274, 8275, 8728, 8729, 8987, 8988, 8989
WALSCO #2515, 2531, 2532
A6..... GENERAL CEMENT #8282, 8606, 8606-L, 9295, 9440
WALSCO #2526, 2543, 2544, 2545

	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1	Exp. side thru .05mfd to stator stator lug of tuning gang. Low side to chassis.	455KC (400v Mod.)	Tuning gang fully open.	Across voice coil.	A1, A2, A3	Adjust for maximum output.
2	Loop	1670KC	"	"	A4	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
3	"	1400KC	1400KC Signal.	"	A5	"
4	"	600KC	600KC	"	A6	Adjust for maximum output. Repeat Steps 1 thru 4.

HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana

The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of

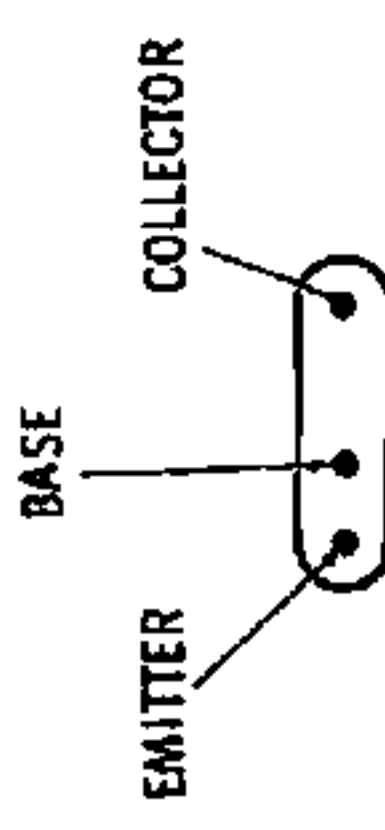
the particular type of replacement part listed. Reproduction or use, without express permission, of editorial or pictorial content, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein. © 1961 Howard W. Sams & Co., Inc., Indianapolis 6, Indiana. Printed in U.S. of America



**ARVIN MODELS 60R63, 60R69,
60R73, 60R79 (Ch. 1.50101)**

A PHOTOFAC STANDARD NOTATION SCHEMATIC
with **CIRCUITRACE**

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TERMINAL VIEW OF TRANSISTOR

1. DC voltage measurements taken with vacuum tube voltmeter.
2. Socket connections or transistor terminals are shown as bottom views.
3. Measured values are from socket pin or terminal to common ground.
4. Nominal tolerance on component values makes possible a variation of $\pm 15\%$ in voltage and resistance readings.
5. Volume control at maximum, no signal applied for voltage measurements.

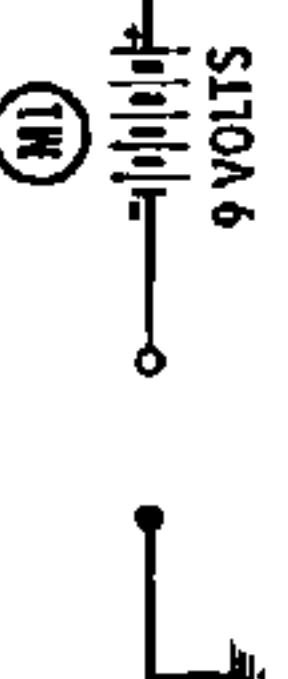
SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

DC COIL RESISTANCE VALUES UNDER ONE OHM NOT SHOWN ON SCHEMATIC DIAGRAM

ARROWS ON CONTROLS INDICATE CLOCKWISE ROTATION (CONTROL VIEWED FROM SHAFT END)

NUMBERS ASSIGNED TO COILS, SWITCHES, PLUGS, SOCKETS, AND TRANSFORMERS ARE TO FACILITATE CIRCUIT TRACING OR COMPONENT REPLACEMENT AND MAY NOT NECESSARILY BE FOUND ON THE UNIT.

RESISTANCE MEASUREMENTS NOT GIVEN BECAUSE OF THE WIDE VARIATION IN INTERNAL TRANSISTOR RESISTANCE.



PARTS LIST AND DESCRIPTIONS

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			RCA PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
X1	2N194A	Converter 1st IF Amp. 2nd IF Amp. Driver Output Output		2N1367	2N194	NPN
X2	2N94			2N1367	2N94	NPN
X3	2N233A			2N1367	2N233A	NPN
X4	2N306		2N649		2N306	NPN
X5	2N1059 ①		2N649		2N1059	NPN
X6	2N1059 ①		2N649		2N1059	NPN

① Alternate Type 2N1431.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						NOTES
	CAP.	VOLT.	ARVIN PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.	
C1	10	10	44396-2	XPP-10010	NLW10-10	TT12X10	MLV10-10	TE-1114	
C2A	50	10	44397-1	BCD10X5050	ECPAN5			VL-2250	
B	50	10							
C3	25	10	44396-6	XPP-10025	NLW25-10	TT10X25	ML10-25	TE-1118	

FIXED CAPACITORS

Capacity values given in the rating column are in mfd. for Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C4	20000		C80V203AM	DDM-203	H-05S2	CCTO-2R2	TA-120	TG-S20
C5	10000		C80V103AM	DDM-103	H-05S1		TA-110	TG-S10
C6	2.4 NPO ±. 25mmf		NPO-DI 2.2	DTZ-2R2	C10V22C		CNO-522	10TCC-V22
C7	20000		C80V203AM	DDM-203	H-05S2		TA-120	TG-S20
C8A	20000		C80V203AM	DDM-203	H-05S2		TA-120	TG-S20
B	20000		C80V203AM	DDM-203	H-05S2		TA-120	TG-S20
C9	6 NPO 10%				C10V6C		10TCC-V56	
C10A	20000		C80V203AM	DDM-203	H-05S2		TA-120	TG-S20
E	20000		C80V203AM	DDM-203	H-05S2		TA-120	TG-S20
C11	1mfd 3V			UK-105				HY-135
C12	3300		BPD-0033	DD-332	BYA10D33	CCD-332	B-233	5HK-D33

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	ARVIN PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.	
R1	2200Ω	1/10	48250-1 ①	B16-212				Volume & Switch

① Alternate Part #48349-1.

RESISTORS (IRC or EQUIVALENT)

All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	RATING	REMARKS
R2	27K	
R3	3900Ω	
R4	3300Ω	
R5	82K	
R6	4700Ω	
R7	470Ω	

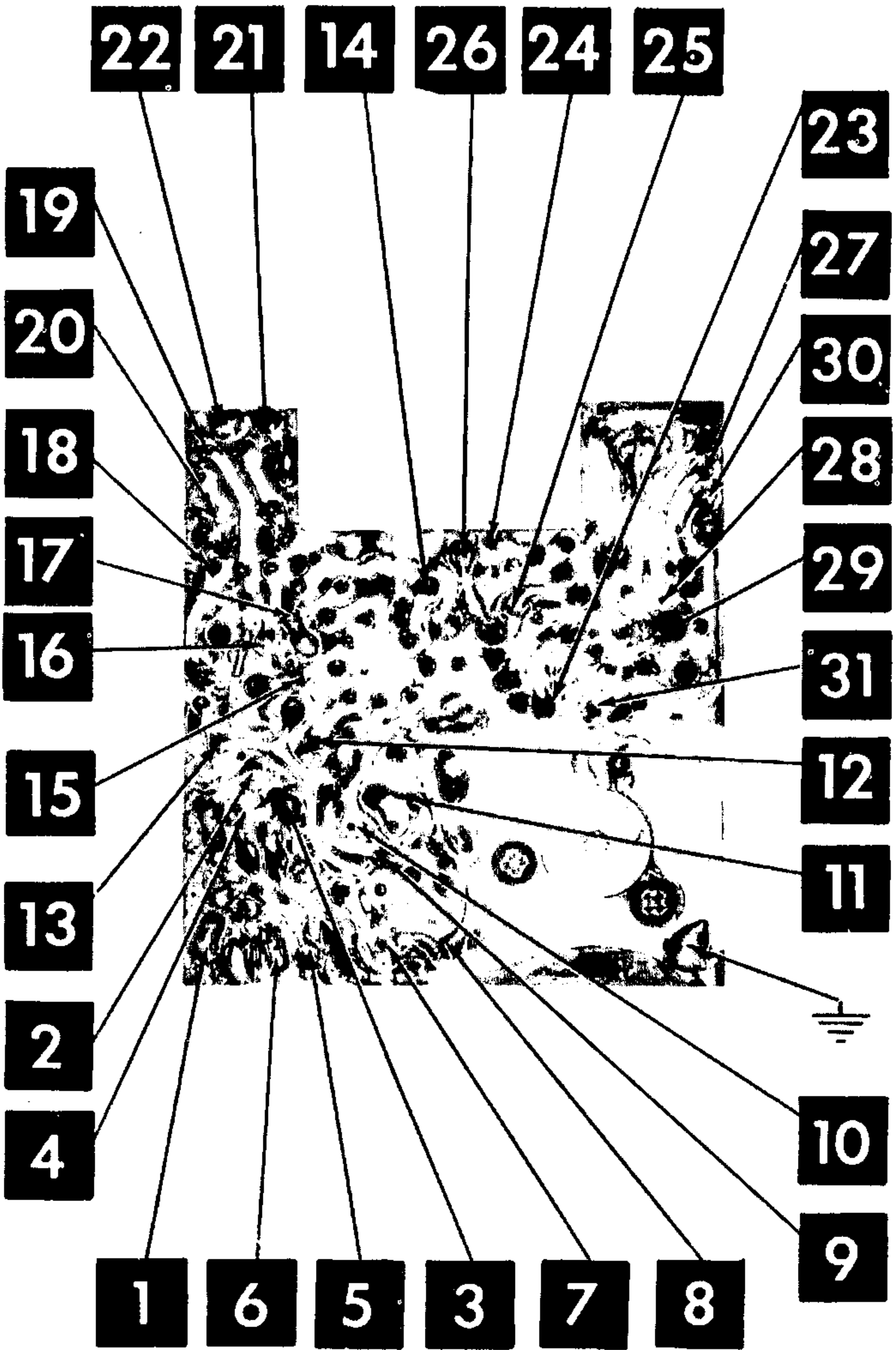
ITEM No.	RATING	REMARKS
R8	4700Ω	
R9	47K	
R10	470Ω	
R11	220Ω	
R12	220Ω	
R13	47K	

ITEM No.	RATING	REMARKS
R14	4700Ω	
R15	470Ω	
R16	2700Ω	(3000Ω) *
R17	100Ω	
R18	2700Ω	(3000Ω) *
R19	100Ω	

* Alternate Value.

PRINTED BOARD

A Howard W. Amsco **CINCINNATI** Photo



PARTS LIST AND DESCRIPTIONS (Continued)

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		ARVIN PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	
L1	Loopstick	44511-7				
L2	Osc. Coil	45783-15				
L3	1st IF Trans.	48197-1				
L4	2nd IF Trans.	48197-2				
L5	3rd IF Trans.	48197-3				

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	ARVIN PART No.	QUAM PART No.	
SPI	2 1/4"	PM	95-105Ω	48352	22A06Z100	

BATTERIES

ITEM No.	VOLTAGE	ARVIN PART No.	REPLACEMENT DATA						NOTES
			BURGESS		EVEREADY		MALLORY		
			"A"	"B"	"A"	"B"	"A"	"B"	
M1	9V			2U6		2I6		M-1604	

SIGNAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA				NOTES
		ARVIN PART No.	GENERAL ELECTRIC PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
M2	1N64	48287		1N64	1N64	Detector (Pigtail)

MISCELLANEOUS

ITEM No.	PART NAME	ARVIN PART No.	NOTES
M3	Tuning Cap.	48314	2 Gang

CABINETS & CABINET PARTS

(When Ordering Cabinets & Cabinet Parts, Specify Model, Chassis & Color)

NAME	PART NO.	DESCRIPTION
Knob	48347-33	Flame, Tuning
Knob	48347-29	Black, Tuning
Knob	48292-33	Flame, Volume
Knob	48292-29	Black, Volume
Cabinet	48280-33	Back, Flame
Cabinet	48280-29	Back, Black
Cabinet	48279-33	Front, Flame
Cabinet	48279-29	Front, Black

WIRING DATA

General-use Unshielded Hook-up Wire Use BELDEN No. 8530 (Solid) Available in Ten Colors
8524 (Stranded) Available in Ten Colors

CHASSIS—TOP VIEW

